

CLAIMS

1. An electric motor assembly including
 - a motor housing having an end,
 - a motor shaft having an end adjacent said motor housing end,
 - means for rotatably mounting said motor shaft in said motor housing, the orientation of the motor shaft defining a motor shaft axis direction,
 - an opening in said motor housing that provides access to said motor shaft end from outside said motor housing,
 - a module housing having an end,
 - a module shaft having an end adjacent said module housing end,
 - means for rotatably mounting said module shaft in said module housing in said shaft axis direction,
 - an opening in said module housing that provides access to said module shaft end from outside said module housing,
 - means for mounting said module housing end on said motor housing end,
 - means for drivingly connecting said module shaft end to said motor shaft end,
 - means for preventing said module housing from rotating relative to said motor housing,
 - means for slidably attaching for shaft axis direction movement relative to each other said module housing and said motor housing,
 - said module shaft end and said motor shaft end being located relative to their respective housings so that they can

be drivingly connected to each other without the module housing and the motor housing interfering with the connection.

2. An electric motor in accordance with Claim 1 wherein said means for drivingly connecting said module shaft end to said motor shaft end and for said means for slidably attaching for shaft axis direction movement relative to each other said module housing and said motor housing comprises a keyed end in one of said module shaft and said motor shaft ends, and a mating keyed opening in said other of said module shaft and said motor shaft ends.

3. An electric motor in accordance with Claim 2 wherein said means for mounting said module housing end on said motor housing end and said means for preventing said module housing from rotating relative to said motor housing comprises means fixedly attaching said module housing end on said motor housing end.

4. An electric motor in accordance with Claim 1 wherein said means for drivingly connecting said module shaft end to said motor shaft end and said means for mounting said module housing end on said motor housing end comprises a threaded end in one of said module shaft and said motor shaft ends, and a threaded opening in said other of said module shaft and said motor shaft ends.

5. An electric motor in accordance with Claim 4 wherein said means for preventing said module housing from rotating relative to said motor housing and said means for slidably attaching for shaft axis direction movement relative to each other said module housing and said motor housing comprises means for slidably attaching for shaft axis direction movement relative to each other said module housing end on said motor housing end.

6. An electric motor in accordance with Claim 5 wherein said means for slidably attaching said module housing end on said motor housing end comprises a post on one of said module housing and said motor housing and a mating indentation on the other of said module housing and said motor housing.

7. An electric motor in accordance with Claim 1 wherein said module includes a governor, said governor including a central governor mount having a central bore that receives said module shaft,

a spring housing coaxial with said governor mount central bore,

a spring in said spring housing and between an end of said module shaft and said spring housing, and

two L-shaped governor arms pivotally mounted on opposite sides of said governor mount so that as said governor mount spins faster, one part of said L-shaped arms moves radially outward and pivots said arms and said other part of L-shaped arm presses the governor mount away from said spring housing along said module shaft.

8. An electric motor in accordance with Claim 1 wherein said module further includes a snap switch, said snap switch being attached to said module housing and including two contacts biased to an open position, and a switch arm adjacent said contracts so that, when said arm is moved toward said contacts, said arm closes said contacts, said switch arm being in contact with said governor mount and extending into said module housing.